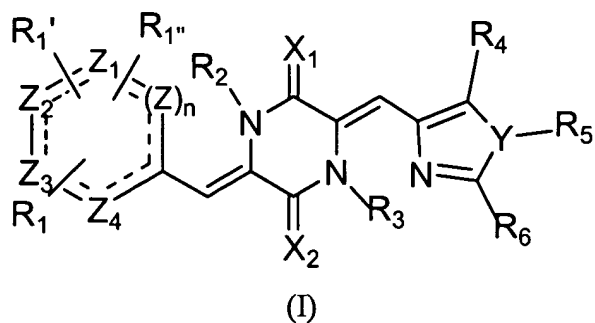


DEHYDROPHENYLAHISTINS AND ANALOGS THEREOF AND THE SYNTHESIS OF DEHYDROPHENYLAHISTINS AND ANALOGS THEREOF

Abstract of the Disclosure

Compounds represented by the following structure (I) are disclosed:



as are methods for making such compounds, wherein said methods comprise reacting a diacyldiketopiperazine with a first aldehyde to produce an intermediate compound; and reacting the intermediate compound with a second aldehyde to produce the class of compounds with the generic structure, where the first aldehyde and the second aldehydes are selected from the group consisting of an oxazolecarboxaldehyde, imidazolecarboxaldehyde, a benzaldehyde, imidazolecarboxaldehyde derivatives, and benzaldehyde derivatives, thereby forming the above compound wherein R₁, R₁', R₁'', R₂, R₃, R₄, R₅, and R₆, X₁ and X₂, Y, Z, Z₁, Z₂, Z₃, and Z₄ may each be separately defined in a manner consistent with the accompanying description. Compositions and methods for treating cancer and fungal infection are also disclosed.